UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,540	01/11/2002	John William Richardson	PU 020013	7304

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EXAMINER
JEAN GILLES, JUDE

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

This Action is in regards to the Reply received on 06/10/2005.

Response to Amendment

1.   This action is responsive to the application filed on 06/10/2005. Claims No claim

has been amended. There are no newly added claims. Claims 1-19 are pending.

Claims 1-19 represent a method and apparatus for a " Physical Layer recovery in a

streaming data delivery system."

Response to Arguments

2.   Applicant's arguments with respect to claims 1 –19 have been carefully

considered, and are considered persuasive. Applicant's arguments, filed 06/10/2005,

with respect to pending claims 1-19 have been fully considered and are persuasive.

The First Rejection Office action of 03/10/2005 has been withdrawn.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1- 19 are rejected under 35 U.S.C. 102(e) as being unpatentable by Li et

al (Li) , U.S. Patent No. 6,757,248 B1.

Regarding claim 1: Li teaches an asynchronous transfer mode (ATM) digital

document delivery system (fig. 5, item 300), comprising:

a customer premise unit configured to permit a customer to order and receive a

data stream (column 9, lines 53-67; column 15, lines 45-67);

a buffer coupled to the customer premise unit to store the data stream before

transmitting the data stream to a customer (column 14, lines 36-53; fig. 7, item Buffer2;

column 16, lines 40-65);

a server having digital documents stored thereon for delivery to the customer

through a switched ATM network (fig. 7, item 310; column 16, lines 40-65; fig. 6, items

400); and

means for controlling a data rate of the data stream between the server and the

buffer to ensure maintenance of a steady data stream from the customer premise unit to

the customer during a loss of a physical layer between the server and the customer

premise unit (column 15, lines 20-67; column 16, lines 1-20).

Regarding claim 2: Li teaches the document delivery system, as recited in claim

1, wherein the customer premise unit includes the buffer therein, the buffer including a

memory storage capacity sufficient to maintain the data stream to a customer for an

amount of time (fig. 7; item 320; Router2; column 16, lines 20-67).

Regarding claim 3: Li teaches the document delivery system, as recited in claim 2, wherein the amount of time includes time needed to restore the physical layer (fig. 7, item 320; Router2; column 16, lines 20-67).

Regarding claim 4: Li teaches the document delivery system, as recited in claim 2, wherein the amount of time includes up to 30 seconds (column 16, lines 20-67; Note that using a time limit for recovery is a well known feature in the art).

Regarding claim 5: Li teaches the document delivery system, as recited in claim 1, wherein the means for controlling includes a network control system coupled to the server and the customer premise unit, the network control system providing control for the data rate of the data stream to the customer premise unit from the server (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 6: Li teaches the document delivery system, as recited in claim 5, further comprising a multiplexer coupled between the customer premise unit and the network control system, the multiplexer including a signaling mechanism to alert at least one component that the physical layer is lost (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 7: Li teaches the document delivery system, as recited in claim 6, further comprising virtual circuits set up between the network control system, the customer premise unit and the multiplexer to enable communication therebetween (fig. 6, items 400, access mux).

Regarding claim 8: Li teaches the document delivery system, as recited in claim 1, wherein the server is configured to deliver the data stream at a rate greater than a

normal rate after the physical layer has been restored (column 15, lines 46-67; fig. 6,

item FR+ installed in item 310).

Regarding claim 9: Li teaches the document delivery system, as recited in claim

8, wherein the server is configured to deliver the data stream at the normal rate after the

buffer has been filled (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 10: Li teaches the document delivery system, as recited in

claim 1, wherein the customer premise unit is configured to deliver the data stream at a

rate less than a normal rate when the physical layer is lost (column 15, lines 46-67; fig.

6, item FR+ installed in item 310).

Regarding claim 11: Li teaches a method for maintaining a data stream over an

asynchronous transfer mode (ATM) network, comprising the steps of:

providing a customer premise unit configured to permit a customer to receive a

data stream; storing a portion of the data stream in a buffer before transmitting the data

stream to a customer(column 9, lines 53-67; column 15, lines 45-67);

transmitting the data stream from a server through a switched ATM network

(column 14, lines 36-53; fig. 7, item Buffer2; column 16, lines 40-65); and

controlling a data rate of the data stream between the server and the buffer to

ensure maintenance of a steady data stream from the customer premise unit to a

customer during a loss of a physical layer between the server and the customer premise

unit (column 15, lines 20-67; column 16, lines 1-20); and

Regarding claim 12: Li teaches the method as recited in claim 11, wherein the

step of controlling a data rate of the data stream includes maintaining an amount of data

from the data stream in the buffer to continue data flow to a customer for an amount of time after the loss of the physical layer (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 13: Li teaches the method as recited in claim 12, wherein the amount of time includes time needed to restore the physical layer (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 14: Li teaches the method as recited in claim 11, wherein the step of controlling includes employing a network control system coupled to the server and the customer premise unit, the network control system providing control for the data rate of the data stream to the customer premise unit from the server (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 15: Li teaches the method as recited in claim 14, further comprising a multiplexer coupled between the customer premise unit and the network control system, and further comprising the step of: when the physical layer is lost, signaling from the multiplexer to alert at least one component that the physical layer is lost (fig. 6, items 400, access mux).

Regarding claim 16: Li teaches the method as recited in claim 14, further comprising the step of setting up virtual circuits between the network control system, the customer premise unit and the multiplexer to enable communication therebetween (fig. 6, items 400, access mux).

Regarding claim 17: Li teaches the method as recited in claim 11, further comprising the step of delivering the data stream from the server at a rate greater than

a normal rate after the physical layer has been restored (column 15, lines 46-67; fig. 6,

item FR+ installed in item 310).

Regarding claim 18: Li teaches the method as recited in claim 17, further

comprising the step of delivering the data stream at the normal rate after the buffer has

been filled (column 15, lines 46-67; fig. 6, item FR+ installed in item 310).

Regarding claim 19: Li teaches the method as recited in claim 11, further

comprising the step of delivering the data stream from the customer premise unit to a

customer at a rate less than a normal rate when the physical layer is lost (column 15,

lines 46-67; fig. 6, item FR+ installed in item 310).

Conclusion

5.   **THIS ACTION IS MADE NON-FINAL.**

Any inquiry concerning this communication or earlier communications from

examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-

3914. The examiner can normally be reached on Monday-Thursday and every other

Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for

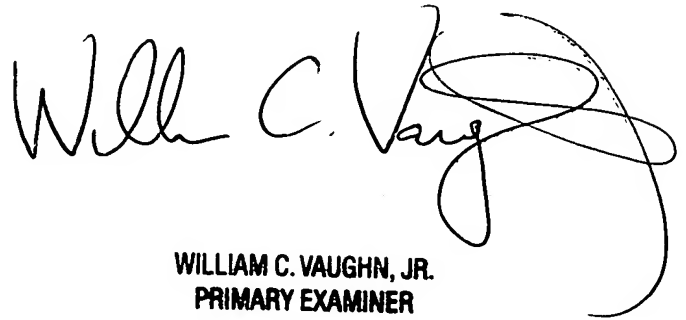the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (571) 272-

9000.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER

JJG

September 05, 2005